

*Samuel Freedley . Penns<sup>a</sup>*

*admitted March 24<sup>th</sup> 1821*

Handwritten text, likely bleed-through from the reverse side of the page. The text is faint and appears to be in cursive script.

An Inaugural essay

on

Hepatitis

Submitted to the examination of

The Trustees and medical Faculty

of the

University of Pennsylvania

By Samuel Freedley

of Pennsylvania

most  
flam  
of  
and  
mon  
whe  
aff  
and  
tran  
and  
he

An essay

on

Hepatitis acuta.

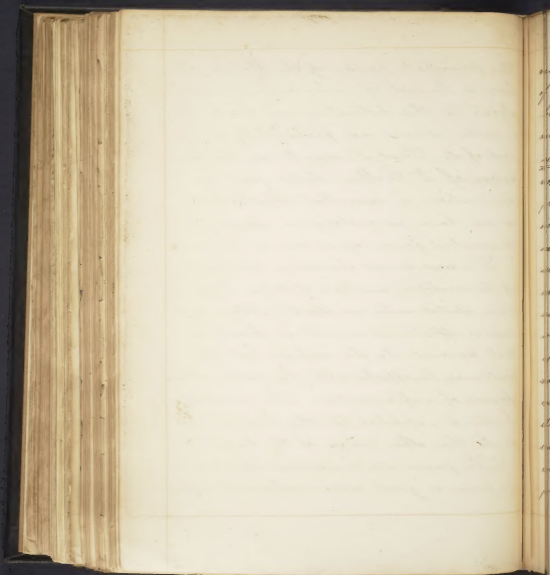
The liver and its membranes like most other parts of the body are liable to inflammation under two forms; the acute and chronic. Dr Cullen supposes the acute exists when the inflammation attacks the enveloping membranes and calls the disease chronic when the parenchyma of the liver is affected. Dr Saunders conceives that the acute inflammation takes place when the extremities of the hepatic artery are affected and the chronic when the branches of the hepatic vein or vena portae, which conveys

the  
low  
of  
it  
for  
not  
did  
as  
to  
of  
ch  
low  
th  
for  
fo  
I  
as  
or

the principal portion of the blood to the liver is the seat of morbid action. Dr Cullen objects to this distinction and thinks there is neither evidence nor probability in support of it. But it seems to me the terminology of Dr Cullen deduced from his distinction is somewhat objectionable, as we have no analogy in names given to similar forms of disease in other parts.

We ~~never~~ do not characterize inflammation of the enveloping membrane of the lungs by the exclusive epithet acute, nor when the substance of the lungs is affected do we call it chronic on that account. On the contrary both these parts may be affected with the acute or chronic forms of inflammation. The same remark I think applies to the liver as well as to the other viscera of the body.

The former writer does not show cause or give a just reason why acute inflam-



mation cannot attack the parenchyma  
of the liver as well as the investing mem-  
brane. I therefore call the inflam-  
mation of the liver acute when the  
symptoms described by the celebrated  
nosological writer of Edinburgh take  
place viz. "Pyrexia; hypochondrii dextri ten-  
sio et dolor, saepe pungens pleuriticus; instas-  
saepe obtusus; dolor ad claviculam et  
summum humeri dextri; decubitus in  
sinistrum latus difficilis; dyspnœa; tussis  
siccæ; vomitus; singultus" and chronic  
when the following observations will  
apply. "Hæc saepe nulla quibus dig-  
noscatæ signa præbet; aliquando tamen  
eandem adesse suspicari potest; ex hepat-  
itidis causis quibusdam prægressus, ex  
sensu quadam plenitudinis et gravitatis  
in hypochondrio dextro, ex doloribus  
plus minusve pungentibus in eadem



parte subinde perceptis, ex dolore quodam a pressu hypochondrii dextra, vel a decubitu in latus sinistrum sentito, et denique ex pyrexia leviori cum dictis signis subinde infestante.

I am led to adopt this distinction X from having been taught that Practitioners of medicine can prescribe only for symptoms— and that any division drawn from the supposed location of disease can lead to no practical result inasmuch as certainty can be obtained only by the dissecting knife.

Hepatitis like other inflammations may terminate in resolution suppuration and abscess, sometimes in gangrene, or it may lead to chronic induration or scirrhus of the liver.

† I think it impossible that acute and chronic hepatitis can exist at the



same time in the same part

The resolution of inflammation of the liver, is often accomplished by an early and judicious use of the remedies to be enumerated presently.

But if the symptoms of fever and local pain do not abate, but on the contrary continue violent or increase for several days, suppuration will probably take place. The commencement of the formation of pus is indicated principally by rigors, succeeded by a sense of weight and oppression in the right hypochondrium, with a throbbing pulsation in the affected side when lying on it.

It has been supposed by some that inflammations of the liver do not terminate in gangrene or mortification. Dr Saunders says "I have seen some instances where the pain and inflammation have subsided suddenly,



and have been succeeded by a low flut-  
tering pulse, cold extremities, delirium,  
and death, so that there has been reason  
to suspect that this organ may on some  
occasions though much less frequently  
than others become gangrenous? But in  
Morgagni de ~~scrophis~~ <sup>et causis</sup> morborum a  
case is related which proves positively that  
the liver becomes gangrenous I now quote:  
his words "Senex annos natus quatuor & septua-  
ginta, gracilis, vinivorus, ante mensam incedere sic  
inreperat, ut sinistro pollicissimo cruri incun-  
beret. Quod domestici magis, quam ipse, ani-  
madvertunt; nihil enim ipsi de hoc dica-  
bat, aut usquam dolore se ostendebat. Duo-  
decim post diebus dolore ventris cor-  
reptus est vago, nullaque eum febris conjuncta,  
quam ipse, nemine consulto, theriaca sumpta  
expulit. Sed duodecim interjectis  
diebus ortus circa meridiem datus est ad



summam regionem itacum dextera simul  
gravans, simul et similes, ut ajebat, quem  
mordentes afficerent canes. Tumebat is  
locus, sed nec colorem mutaverat, &  
si tangeres, mollis erat; manu autem  
profundius appressa, durum percipiebatur.  
Pulsus, caeteroquin laudabilis, color & fre-  
quens erat. Pulsi intra artus solidabantur.  
Lingua sicca. Vox mala. Die mortis  
altera pulsus major, & vibratus. Dolor,  
& tumor se ad ventris medium exten-  
debant, qui demum sinistrossum quoque  
perreperunt. Sanguis e dextero brachio  
missus ad uncias septem, nihil seri; crassam  
~~etiam~~, autem, & flavam habuit crustam. Sana  
erat quidem, non ea tamen, ut cibum respu-  
eretur. Pulsus sine malitia exonerabatur.  
Vox pressima. Die tertia pulsus hu-  
milis: reclusus crebris, amari, acidi: loquela  
quasi a convulsione vitata: mens sub

1000  
aug  
gan  
to  
be  
ran  
ta  
ran  
hu  
na  
reg  
jan  
de  
reg  
et  
la  
me  
pe  
na  
lay

inde non constans, ut irania, & nigrae, quas  
aeger narrabat, ostendebant. Die quarta  
~~quarta~~ artus identidem convellabantur,  
totumque corpus rigidum ad quadran-  
tem horae permanebat: quae dum fier-  
rent, nulli erant pulsus: & arispirans, solu-  
ta convulsione, hi quoque redibant; &  
sanguinem quidem in caeteris similes; sed  
humiles, & prementibus digitis non ~~manu~~  
residentes. Postea difficili facta  
respiratione, et si lingua demum erat  
jam humida, neque homo amplius  
delirabat, faeces vomuit, & paulo post ad  
vesperam diei ejusdem convulsus mortuus  
est. Abdomine diducto, sinister jecoris  
lobus inventus est laxus, & sphacelo pro-  
fus vitiat. Ventriculus, & intestina, Tenuia  
praesertim, hic rubra, istis livida, illi  
nigra. Coli autem initium, quae muscu-  
los continebat, cavam apertis illi faciem.

of  
ac  
no  
Sa  
ac  
the  
some  
ga  
of  
ac  
the  
ho  
the  
the  
ac  
is  
al  
of

operientes, simul cum ipsis & gangræna  
amens occupatum erat. & sic consequens, ut  
vine laceratione separari non potuerit.  
Illinc. videbatur effusum esse quod in  
ventris cavo conspectum fuerat solum  
lividum & puri admixtum, cui semper  
simile intestina continerant.

The last cited case evidently shows that  
gangrene takes place in the substance  
of the liver to a great degree; and if  
acute inflammation can only attack  
the enveloping membranes, I would ask  
how it is possible that the substance of  
the liver becomes gangrenous, as mortifica-  
tion according to the present opinions can  
arise only from two causes viz want of move-  
ment and cess of inflammatory action.

The diagnosis of Hepatitis is not  
always easy to be made in consequence  
of the vicinity of the organ diseased to

to  
the  
pe  
ma  
of  
two  
dis  
pe  
the  
don  
as  
gen  
re  
con  
it  
was  
as  
two  
of

to other vicera. It is sometimes mistaken  
for inflammation of these organs viz. for  
pleurisy or peripneumony or gastritis. It  
may occasionally be mistaken for spasm  
of the gall ducts and for rheumatic affec-  
tions of the neighbouring parts. Dr Penderton  
distinguishes Peritonitis inflammation  
from Hepatitis 1<sup>st</sup> By remarking that in  
the latter complaint a gradual inspiration  
does not produce cough although it increase  
the pain. 2<sup>ndly</sup> that the pain is increased by  
gentle pressure under the margin of the  
ribs which is not the case in peritonitis  
complaints and 3<sup>rdly</sup> that the cough if  
it is present is found to have succeeded  
not preceded or have been coeval with it  
as in pleurisy

From gastritis the hepatic inflamma-  
tion may be distinguished by the absence  
of that extreme sense of heat and pain

Children to

with which the inflamed stomach is impeded. Nor is the prostration of strength so great in hepatitis as in inflammation of the stomach.

Inflammation of the liver may be distinguished from spasm of the gall ducts, by, as is said, the presence of nausea, by the pain being permanent, by the usual symptoms of Typhus, and the patient feeling more ease in an erect than in a flexed posture of the body.

The causes of Hepatitis are not easily discerned. With respect to the predisposition \* to this disease it has been observed most frequently in the male sex and not until the adult period of life. The exciting causes are partly those which induce general inflammatory affections and partly those which occasion an excitement of the circulation of the liver. Among the former causes may be mentioned external violence from contusions, falls &c sudden vicissitudes



of temperatures, and the application of cold. Among the latter causes are violent bodily exercises; intemperance in the use of spirituous liquors; and continued great heat of climate or season.

#### Of the cure of Hepatitis acuta

We commence the cure of Hepatitis by arresting as speedily as possible the inflammatory process. In the commencement blood must be drawn by a large orifice. Fifteen or twenty ounces must be taken in as short time as possible and subsequent bleedings must be governed according to circumstances. If the patient be plethoric and the pulse active he will bear to lose more and vice versa. The appearance of the blood must also be taken into consideration. But it can only be considered as a safe guide in conjunction with the pulse the degree of pain and other



symptoms. If the buff after remaining  
five or six hours after venesection become  
firm opaque, and have a concave surface  
have puckered edges, the pulse <sup>be</sup> hard, and  
the degree of pain be not diminished  
we may feel secure in drawing more  
blood. If on the contrary the buff  
after an equal time be semitransparent  
have a greenish yellow colour general  
bleeding may be omitted, I should then  
have recourse to topical bloodletting  
blistering and such local application  
as would produce a free discharge

Cathartics should be early employed  
as they act more particularly on the  
part affected unloading the vessels by  
aiding the passage of bile and producing  
a determination of blood to the surface  
of the intestines. Some difference of  
opinion exists amongst practitioners with

re  
f  
sa  
pa  
ly  
m  
ll  
th  
y  
C  
K  
lun  
and  
H  
na  
H  
cur  
eva  
wh  
is e

regard to the nature of the cathartics most useful, some recommend the neutral salts but Calomel as it is said to act high up in the intestines certainly claims preference.

In order to maintain my views of Hepatitis which I endeavoured to support before the professors of the University of Pennsylvania, I adduce the authority of Dr. James Cruick a very intelligent physician of Guy's \* Hospital, in London, who had ample opportunities of treating Hepatitis both in England and in India where it is almost endemic.

He gives a decided preference to mercurial purgatives and especially to calomels. He expressly attributes its efficacy in the cure of Hepatitis to its qualities as an evacuant (in the copy of his letter which is before me the word evacuant is emphatically placed in Italic letters)



for he accords with the opinions <sup>of the</sup> best  
writers, that the general action of mercury  
on the constitution, were it practicable to  
accomplish this intention in a short time,  
than is almost always required, would be  
injurious in the early and highly inflam-  
matory stage of the disease. The superior  
efficacy of calomel is ascribed to its pecu-  
liar quality of evacuating the ducts of the  
liver, and considers its operation in this  
way as often diminishing or superseding the  
necessity of bloodletting. He illustrates  
the ~~advantage~~ advantage of this "evacuating the  
biliary ducts" by the great and speedy relief  
afforded by drawing out the milk from  
the mamma when this gland becomes  
inflamed after parturition.

In looking over a paper on Hepatitis I  
found a sentence which accords with  
my ideas so nearly that I cannot do

the  
me  
of  
lib  
ed  
as  
pe  
it  
an  
of  
of  
pe  
is  
slip  
the  
can  
ha  
bo

better than make an extract from it

"We have omitted, hitherto, to mention the administration of mercury in the treatment of hepatitis. A very mischievous opinion, ~~permeated~~ derived from the practitioners in India, has for some time prevailed, that mercury is specific in every disease of the liver; and that even in active phlegmonous inflammation of this viscus it will prevent suppuration. This opinion, which has been built on the success of mercurials in chronic inflammations of the liver, has led to an empirical practice, in which no discrimination is made between forms of disease, which differ more in their nature, than in the name imposed upon them. And there can scarcely be a doubt, from the known effects of mercury ~~upon~~ the body, that, if it be incautiously

crop  
 and  
 the  
 que  
 acc  
 pa  
 ju  
 in  
 an  
 to  
 be  
 p  
 m  
 m  
 th  
 th

employed in the active period of inflammation, it will increase the action of the arterial system, (already too much) quickened and therefore tend directly to accelerate, and not retard, the suppurative process. It appears, indeed, that many judicious and successful practitioners in India do not administer mercury, until the violence of the inflammatory action has been moderated by bleeding, active purging, and the anti-phlogistic plan of treatment. We are now speaking of the administration of mercury in such a way as to produce the peculiar effects of that metal on the constitution at large."

